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**Research Methodologies Comparison**

**Qualitative Research:** Qualitative research recognizes that issues studied have many dimensions and layers. Therefore the issue is portrayed in its multifaceted form. Qualitative research results in description, narratives, and visuals. Leedy & Ormond, 2005, p. 144

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| Design | Purpose | Methods of Data Collection and Analysis | Examples |
| Case Study | A type of qualitative research that attempts to understand one person or situation in great depth. | * observations * interviews * appropriate written documents * categorization * interpretation of data in terms of common themes * synthesis into an overall portrait of the case | * Analyze the instructional strategies that a master teacher uses in instruction |
| Ethnography | To understand how behaviors reflect the culture of a group | * participant observation * structured or unstructured interviews * artifact document collection * Organizing data into a logical whole * Identification of significant phenomena and underlying beliefs | * study the characteristics of elementary children in bilingual areas |
| Phenomenological Study | To understand and experience from the participants point of view | * in-depth interviews * purposeful sampling * search for “meaningful units” that reflect various aspects of the experience * Integration of the meaningful units into a typical experience | * Study a family living with a child with disabilities |
| Grounded Theory Study | A type of qualitative research that derives a theory from data collected in a natural setting | * interviews * constant comparative method * continual interweaving of data collection and analysis | * study the interactions between administrators and teachers |
| Content Analysis | To identify the specific characteristics of a body of material | * identify specific material to be studied * define characteristics to be examined * break complex items into manageable segments * code materials based on set parameters | * studying forms of communication |

**Historical Research:** An attempt to solve certain problems arising out of a historical context through gathering and examining relevant data. Historical research deals with the meaning of events. (p. 108)

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| Design | Purpose | Methods of Data Collection and Analysis | Examples |
| External Evidence | External evidence is primarily concerned with the question, Is the article genuine? | * original manuscripts * original documents * establish authenticity of document | * determine if a primary source document from Abraham Lincoln is credible |
| Internal Evidence | Internal evidence asks, “What interpretations can be extracted from the words in the document?” | * original manuscripts * original documents | * analyze correspondence letters between two historical figures |

**Descriptive Research:** *involves either identifying the characteristics of an observed phenomenon or exploring possible correlations among two or more phenomena* (Leedy & Ormond, 2005, p. 179).

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| Design | Purpose | Methods of Data Collection and Analysis | Examples |
| Correlational | A statistical investigation of the relationship between two or more variables | * observations * interviews * appropriate written documents | * study the correlation between high school seniors and achievement test scores and freshman college GPA |
| Developmental | An observational-descriptive type of research that either compares people in different age groups or follows a particular group over a lengthy period of time | * observations * interviews * appropriate written documents * cross-sectional study * longitudinal study | * study developmental trends in education |
| Observational Studies | A type of quantitative research in which a particular aspect of behavior is observed systematically and with as much objectivity as possible | * observations * interviews * appropriate written documents | * study social skills exhibited by elementary students during recess |
| Survey Research | A common method used in business, sociology and government. Surveys are used to describe the incidents, frequency, and distribution of certain characteristics of a population | * observations * interviews | * survey small groups to make a large group generalization |

**Experimental and Causal-Comparative Designs:** Use this design to identify cause and effect relationships (Leedy & Ormond, 2005, p. 217).

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| Design | Purpose | Methods of Data Collection and Analysis | Examples |
| Pre-experimental Designs | In pre-experimental designs, it is not possible to show cause-and-effect relationships, because either (a) the independent “variable” doesn’t vary or (b) experimental and control groups are not comprised of equivalent or randomly selected individuals. Such designs are helpful only for forming tentative hypothesis that should be followed up with more controlled studies | * one-shot experimental case study * one-group pretest-posttest design * static group comparison | * Form a tentative hypothesis about what causes the spread of chicken pox in a school. Follow up with a controlled study. |
| True Experimental Designs | A study in which participants are randomly assigned to groups that undergo various researcher-imposed treatments or interventions, followed by observations or measurements to assess the effects of the treatments | * pretest-posttest control group design * Solomon four-group design * posttest-only control group design * within-subjects design | * Study the effects of telling time with manipulatives and without manipulatives |
| Quasi-experimental Designs | A method similar to experimental research but without random assignment to groups | * nonrandomized control group pretest-posttest design * simple time-series design * control group | * All students participate in the experiment to use manipulatives when studying telling time. |